Notes on the Fructification of the Bunya.

By the Honorable James Norton.

In August, 1881, it was noticed for the first time in this colony at Ecclesbourne, Double Bay, and subsequently at Fernhill, Mulgoa, and also in the Queensland Gardens, that the Bunya (*Araucaria Bidwellii*) which had freely produced infertile cones for many years had then commenced to produce male catkins in abundance.

The tree which produced catkins in my own garden has since ripened several cones which are now falling filled with fertile nuts.

It is singular that the cones were all formed at a greater height in the tree than the catkins which were to fertilise them, and that the fruit should take so long a period of time (at least eighteen months) to come to perfection.

I have collected more than a bushel of the nuts, and one of them having been planted by a boy by way of experiment immediately germinated, but as the boy unwittingly placed the large end in the soil the root is at present growing upwards in the air.

The question whether the tree is monœcious or diœcious is now therefore beyond a doubt. In another part of the garden, at about eighty yards distance, I have nine other specimens of this tree, but these have never produced catkins, and out of fifty-one cones formed by them this year I have only obtained about twenty-six fertile nuts, while the tree first mentioned has produced nearly 1000.

I may here mention that two out of the three fertile nuts ripened by these trees, in 1881, before the appearance of the catkins in this colony, are growing and in a healthy condition, but as yet no difference can be perceived between them and the ordinary unhybridized plants though there can be little doubt that they are the result of fertilisation by some other *Araucaria*.

It may be interesting to botanists to state here that *Pinus insignis* is now producing cones freely. Although for several

years I have watched for the male inflorescence, if it may be so called, I have never succeeded in discovering it, but the only cone which I have yet examined contains fertile seeds.

This, however, may be due to some other pine of the same class, for the pollen is sufficiently light to be capable of being wafted by wind to considerable distances.

Description of some New Australian Fishes.

By E. P. Ramsay, F.L.S., &c.

Saurida ferox, sp. nov.

D. 1/10. V. 9. A. 11. P. 14 to 15.

A horny tubercle on either side at the base of the tail. Length of head four times in the total without the caudal. The interorbital space equals the distance from the centre of the eye to the tip of the snout, and is nearly four times in the length of the head. Adipose eyelid well developed, extending to the nostril. Short diameter of the eye one and two-thirds in the snout, and one and a-half of the interorbital space, eight times in the length of the head, silvery with a narrow yellow margin anteriorly. The height of the body six times in the total length without the caudal. The dorsal fin commences opposite the thirteenth scale of the lateral line: the pectoral reaches as far as the vent and to the eleventh scale of the lateral line. The adipose fin is equal to half the length of snout from centre of orbit. A pale rose band below the lateral line followed by three or four of a yellowish tint: belly silvery, above the lateral line brown Lateral line raised, keeled.

Hab. Port Jackson.

Batrachus punctatulus, sp. nov.

D. 12—16. A. 15. V. 1, 5. P. 21.

No branchiostegals. General color light sienna brown, spotted with blackish brown, larger spots on the back, the whole of the head above and below spotted. Pectoral fin broad and short, as wide as long; dorsal continuous, the rays about twice as long as the spines, tips of the fourth and fifth ray reaching to the membrane